



Illinois Department of Transportation

Memorandum

To: DEPUTY SECRETARIES, DIRECTORS AND BUREAU CHIEFS
From: Becky Koehler
Bureau Chief of Personnel Management
Subject: Technical Vacancy
Date: January 26, 2018

Attached are the Position Summary Sheet and Position Description for the vacant technical position listed below. Please post this vacancy announcement January 29, 2018 in the designated areas.

The deadline for applicants to submit their applications for consideration is **4:30 p.m. on Friday, February 9, 2018**. Applications will not be accepted after that time and date.

NOTE: Applications will be accepted from qualified permanent DOT employees only. Please be advised that if a high volume of applications are received, the applications may be screened to establish a smaller pool of applicants for interview. The screening will be based on the information contained in the application.

If you have any questions, please contact the Bureau of Personnel Management at 217/782-5594.

ET IV

Subsurface Investigation Supervisor
Region 5/District 9/Project Implementation
Highways Project Implementation
Carbondale

Attachments
42461

Technical Applications [PM1080 rev 6/1/17](#) ****must be received** by the Bureau of Personnel Management, Room 113, 2300 South Dirksen Parkway, Springfield, IL 62764 (Fax# 217/557-3134) or emailed to DOT.CO.BPM.EmploymentApplications@Illinois.gov by **Friday, February 9, 2018, 4:30 p.m.** Please include address, daytime phone and position for which applying if not already listed on application. Applicants will be notified in writing to schedule interviews.

NOTE: Applications will be accepted from qualified permanent DOT employees only. Please be advised that if a high volume of applications are received, the applications may be screened to establish a smaller pool of applicants for interview. The screening will be based on the information contained in the application.



Illinois Department of Transportation

An Equal Opportunity Employer

Position Summary Sheet

Classification:	Engineering Technician IV	Salary:	\$4,695 - \$8,775
Position Title:	Subsurface Investigation Supervisor	Union Position:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Position Number:	PW014-23-59-203-11-01	IPR#:	42461

Office/Central Bureau/District/Work Address:

Office of Highways Project Implementation/Region 5/District 9/Bureau of Project Implementation/2801 W Murphysboro Rd, Carbondale, IL

Description Of Duties:

This position is accountable for supervising a drill crew and in obtaining and logging soil information necessary for the design and construction of new highways and structures.

Special Qualifications:

Required:

- Valid driver's license
- 24/7 emergency call-out availability
- Extensive districtwide travel; occasional statewide travel with overnight stays; and occasional overtime during evening and weekends
- Heavy/repetitive lifting up to 75 lbs.
- Ability to work in confined spaces; climb steep terrain; wade in water; deal with animals, insects, rodents, snakes; perform outdoor work in a variety of conditions including, but not limited to inclement weather (hot, cold, wet, windy, muddy), active construction sites and roadways open to traffic.

Desired:

- An Associate Degree from an accredited two-year civil engineering technology program or two years of college in pre-engineering or civil engineering technology
- Eight years of experience in performing a variety of technical tasks of which at least four years should be related to civil engineering
- Extensive knowledge of the principles and practices of civil engineering and the application of engineering techniques to the design, construction, and maintenance of public works
- Extensive knowledge of mathematics
- Ability to operate engineering field and office instruments and physical laboratory testing equipment
- Strong oral and written communication skills, and problem-solving and decision-making skills

Shift/Remarks:

8:00 am – 4:30 pm, Monday – Friday

****Technical Application PM1080 (revised 6/1/17) is required. No previous version of the PM1080 will be accepted.**

**ILLINOIS DEPARTMENT OF TRANSPORTATION
POSITION DESCRIPTION**

DATE:	September 1, 2017	POSITION:	Subsurface Investigation Supervisor
APPROVED BY:	<u>Jeffrey L Keirn</u>	OFFICE/DIVISION:	OHPI, Region 5/District 9, Project Implementation
CODE:	PW014-23-59-203-11-01	REPORTS TO:	Geotechnical Engineer

Position Purpose

This position is accountable for supervising a drill crew and in obtaining and logging soil information necessary for the design and construction of new highways and structures.

Dimensions

Subordinate Personnel:	3
Contract Value of Structures:	\$25,000 - \$2.5 Million
Contract Value of State Roadway	
Design Requiring Soil Reports:	\$2 - \$5 Million
Value of Preliminary Surveys for 5	
Year Program:	\$25 - \$65 Million

Nature and Scope

This position reports to the Geotechnical Engineer. Reporting to this position are Highway Maintainers, along with temporarily assigned engineers and technicians as needed.

The incumbent provides the Geotechnical Engineer with boring log reports after analyzing and classifying soils or core samples obtained by his/her crew using large conventional truck mounted rotary drill rigs. The soils information obtained is often used in preparing the Geotechnical report and for the design of foundations for piers, abutments and other highway structures within the District. Core samples of bridge decks and pavements are used to determine the adequacy of existing structures for widening or repair.

Problems typically confronting the incumbent involve coordinating the work of his/her crew with the agency for which he/she is working; obtaining access from private property owners; supervising the work of the crew under difficult weather and/or terrain conditions; keeping equipment maintained and operating; and obtaining parts for equipment. The greatest challenge for the incumbent is to obtain accurate and complete information when unanticipated soil conditions are encountered and also to motivate his/her crew to achieve a high level of productivity under adverse conditions.

The incumbent personally assigns work duties to his/her crew; locates boring sites; determines boring locations; determines depth of boring; arranges traffic control with district forces; and arranges for the location of underground utilities including cable lines, gas lines, water lines or other underground facilities which could endanger the safety of the drill crew, the equipment, impact the drilling operation or disrupt services to residents. Contacts property owners and arranges for permission to drill on their property; analyzes soil samples; records data in the boring logs; assists other agencies with subsurface investigations; and assists the Geotechnical Engineer in the preparation of subsurface investigation reports and soils profiles. The incumbent may be required to perform embankment density and moisture tests, aggregate density and moisture tests, subgrade Dynamic Cone Penetrometer tests, and hot mix asphalt density tests on construction projects to assure conformance with plans, specifications, policies and good engineering practices.

The incumbent accomplishes his/her objectives through the following subordinate positions and through Engineering Technicians or Technical Trainees who are assigned on a seasonal basis:

Highway Maintainers - who are responsible for operating drilling equipment and performing manual labor related to obtaining foundation and soil survey borings. They are assigned to Operations on a seasonal basis to assist with snow removal or perform other necessary highway related duties.

Temporarily assigned engineers and technicians - who assist in obtaining soil information for foundation and roadway design and in the preparation of subsurface investigation reports and soils profiles, including analyzing and compiling data.

The incumbent has the authority to act within his/her area of responsibility but consults with his supervisor concerning drilling assignments and soils analysis. He/She recommends the purchase of supplies and services required to perform assigned duties. The position operates within Departmental Rules, Orders, Policies and Specifications. This position requires a valid driver's license; 24/7 emergency call-out availability; extensive travel within the District and some travel statewide; possible overtime; possible overnight stays for training; heavy/repetitive lifting up to 75 lb.; work in confined spaces; climb steep terrain; wade in water; deal with animals, insects, rodents, snakes; perform outdoor work in a variety of conditions including, but not limited to inclement weather (hot, cold, wet, windy, muddy), active construction sites and roadways open to traffic.

Within the Department there are frequent contacts with the District Bureaus of Program Development and Operations, Local Roads and Streets Section, and the Central Bureau of Materials. Outside contacts are with property owners, county engineers, local governmental agencies, Department of Natural Resources, contractors and construction foreman.

The incumbent's performance is based upon his/her ability to properly obtain and log soils datum, on his/her ability to obtain accurate and complete information when unanticipated soils conditions arise and on his/her ability to reduce or minimize down time due to equipment and supply breakdowns.

Principal Accountabilities

1. Supervise foundation borings for structures and drilling and coring for box culverts and roadways.
2. Obtain, analyze and log sufficient soil information on which to base foundation and roadway design.
3. Arrange for permission to enter private property for preliminary soil investigation work.
4. Review proposed borrow sites; supervise borings; and prepare documentation for the approval, disapproval or modification of proposed borrow sites.
5. Supervise the maintenance and repair of mobile drilling machines and vehicles used by the drilling crew.
6. Assist other agencies in performing or obtaining structure borings and soil surveys.
7. Assist the Geotechnical Engineer in the preparation of subsurface investigation reports and soils profiles, including analyzing and compiling data.
8. Train, motivate and evaluate subordinate staff.
9. Perform density testing of embankments and HMA construction by nuclear testing equipment and other methods.
10. Perform other duties as assigned.
11. Perform duties in compliance with departmental safety rules. Perform all duties in a manner conducive to the fair and equitable treatment of all employees.